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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,749

10/06/2006

Dagnachew Birru

US040181

3689

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7590

03/25/2008

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

AKBAR, MUHAMMAD A

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

03/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,749	Applicant(s) BIRRU ET AL.	
	Examiner MUHAMMAD AKBAR	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/6/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show legend in fig.6A,6B,7,89,10 as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification Objection

2. The arrangement of the sections of the specification is improper due to missing “background of the invention” (see MPEP 608.01(c)); and “brief summary of the invention” (see MPEP 608.01(d)); “detailed description of the several views of the drawings” (see MPEP 608.01(f)) also drawings must indicate “prior art” if the drawings are related to the prior art ; “detailed description of the invention” (see MPEP 608.01(g)) . Appropriate correction is required (see 37 CFR 1.77 (b)).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim(s) 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Diener et al (U.S. Patent No. 7,269,151 B2) (hereafter Diener).

Regarding claim 1, Diener discloses a method for efficiently utilizing spectrum resources (see abstract) comprising the steps of:

measuring (i.e. determining) one or more operating frequency band (i.e. spectrum

opportunity) wherein said opportunity is determine (identified) by a frequency band and a time interval (see fig.4,9 and col.2 lines 3-12,col.5 lines 30-36);

determining a set of adjusted transmission characteristics (data rate, power control, TPC) to allow for transmission of a desired signal in said identified frequency band, wherein said adjusted transmission characteristics avoid interference with signals expected in said frequency range (see fig. 4,9 and col.2 lines 12-26, col.5 lines 36-46); and transmitting said desired signal using said adjusted transmission characteristics (adjusted data packet, data rate) when said transmission occurs during said time duration (see abstract,fig.4,6,9 and col.2 lines 3-26,col.5 lines 30-46).

Regarding claim 2,3, as discussed above with respect to claim 1, Diener further discloses measuring (i.e. determining) one or more operating frequency band (i.e. spectrum opportunity) comprises the steps of: detecting receive signals in known frequency bands and location; and determining the characteristics (data rate, power control, TPC) of said received signals (see abstract, fig.4, 9 and col.2 lines 12-26,col.5 lines 36-46); a time interval of reception of received signal (see fig.6 and col. 7 lines 33 - 38).

Regarding claim 4, as discussed above with respect to claim 2, Diener further discloses measuring received signal characteristics by signal detector and selected from the group consisting of: received power, signal conversion (i.e. modulation), modulation rate and bandwidth (see fig.7 and col.8 lines 61-67).

Regarding claim 5,6, as discussed above with respect to claim 1, Diener further discloses determining a location by location engine (210 of fig.15) for receiving device

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(see fig.15); obtaining location and transmission characteristics for known transmitters from at least one database from spectrum management sources (memory) (see fig.6); and determining an estimated received signal characteristics based on locations of said transmitters and a location of said receiving device (see fig.6-9, and col.6 lines 55-67,col. 14 lines 21-32); and location is selected from the group consisting of location engine (GPS location), and manual input (see fig.15).

Regarding claim 7, as discussed above with respect to claim 1, Diener further discloses determining one spectrum opportunity is performed from selected group consisting of: periodic, time duration, on a known event (see fig. 4 and col.5 lines 30-46).

Regarding claim 8, Diener discloses a method for efficiently utilizing spectrum resources (see abstract) comprising :

memory (32 of fig.6); and a processor (30 of fig.6), in communication with said memory, executing code for:

receiving information items regarding one spectrum opportunity, wherein said opportunity is determine (identified) by a frequency band and a time interval (see fig.4,9 and col.2 lines 3-12,col.5 lines 30-36);

determining a set of adjusted transmission characteristics (data rate, power control, TPC) to allow for transmission of a desired signal in said identified frequency band, wherein said adjusted transmission characteristics avoid interference with signals expected in said frequency range (see fig.4,9 and col.2 lines 12-26,col.5 lines 36-46); and transmitting said desired signal using said adjusted transmission characteristics

(adjusted data packet, data rate) when said transmission occurs during said time duration (see abstract, fig. 4, 6, 9 and col. 2 lines 3-26, col. 5 lines 30-46);

enabling transmission of said desired signal in said opportunity frequency band using said adjusted transmission characteristics when transmission of said desired signal occurs during said opportunity time duration (see fig. 1, 4 and col. 5 lines 30-67).

Regarding claim 9, as discussed above with respect to claim 8, Diener further discloses a receiving unit (12 of fig. 6) for receiving signals and providing received signal characteristics to said processor (30) (see fig. 6).

Regarding claim 10, as discussed above with respect to claim 9, Diener further discloses processor (30) further executing instruction for determining spectrum opportunity information items based on said received signal characteristics (see fig. 1, 4, 6 and col. 8 lines 4-12).

Regarding claim 11, as discussed above with respect to claim 8, Diener further discloses determining a location by location engine (210 of fig. 15) for receiving device (see fig. 15); obtaining location and transmission characteristics for known transmitters from at least one database from spectrum management sources (memory) (see fig. 6); and determining an estimated received signal characteristics based on locations of said transmitters and a location of said receiving device (see fig. 6-9, and col. 6 lines 55-67, col. 14 lines 21-32).

Regarding claim 12, 13, 14, as discussed above with respect to claim 8, Diener further discloses an input/output unit (12 of fig. 6) in communication with said processor (30) and said memory (32) (see fig. 6); wherein said instruction code is stored in said

memory (32) (see fig.1,4,6 and col.8 lines 4-12); a transmitting unit (12 of fig.6) for transmitting said desired signal (see fig.6 and col.5 lines 30-67).

Regarding claim 15, Diener discloses a wireless communication system (see fig.1,6, col.3 lines 49-67) comprising :

a receiving unit (12) for receiving information items regarding at least one receivable signal (see fig.6);

a processing unit (30 of fig.6) for determining characteristics of received signal a managing unit (300 of fig.9) for adjusting transmission in order to spectrum management, characteristics of a desired signal based on said determined received signal characteristics(see fig.6,15 and col.7 lines 6-30, col.11 lines 40);

wherein said adjusted transmission characteristics avoid interference with said received signals; and a transmission unit (12) receiving said adjusted transmission characteristics to transmit said desired signal (see fig.4,6,9,15 and col.2 lines 3-26,col.5 lines 30-46).

Regarding claim 16, as discussed above with respect to claim 15, Diener further discloses receiving unit (12) is a receiver for receiving signals transmitted wirelessly and said information items are associated with said received signals 9see fig.1 and fig.6).

Regarding claim 17, as discussed above with respect to claim 15, Diener further discloses receiving unit (12) is connected with a processor (30) for receiving information associated with location determine by location engine (210 of fig.15) and obtaining location and transmission characteristics for known transmitters from at least one database from spectrum management sources (memory) (see fig.6); and determining

an estimated received signal characteristics based on locations of said transmitters and a location of said receiving device (see fig.6-9, and col.6 lines 55-67,col. 14 lines 21-32).

Regarding claim 18, as discussed above with respect to claim 15, Diener further discloses measuring (i.e. determining) one or more operating frequency band (i.e. spectrum opportunity) comprises the steps of: detecting receive signals in known frequency bands and location; and determining the characteristics (data rate, power control, TPC) of said received signals (see abstract, fig.4, 9 and col.2 lines 12-26,col.5 lines 36-46).

Regarding claim 19, as discussed above with respect to claim 15, Diener further discloses measuring received signal characteristics by signal detector and selected from the group consisting of: received power, signal conversion (i.e. modulation), modulation rate and bandwidth (see fig.7 and col.8 lines 61-67).

Regarding claim 20, as discussed above with respect to claim 15, Diener further discloses desired signal transmission power in a frequency range of said received signals is substantially higher when two devices are close proximity and interference signal is processed by higher level processing (see fig.1 and col.3 lines 49-55) (i.e. interference will be minimum if received signals are not present in the process, therefore transmission will significantly higher).

Regarding claim 21, as discussed above with respect to claim 15, Diener further discloses determining a set of adjusted transmission characteristics (data rate, power control, TPC) to allow for transmission of a desired signal in said identified frequency

band and time interval, wherein said adjusted transmission characteristics avoid interference with signals expected in said frequency range (see fig.4,9 and col.2 lines 12-26,col.5 lines 36-46).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure (7.96)

The following patent are cited to further show the state of the art with respect to clips and bookmarks in general:

U.S. PG. Pub. 2003/0050012 A1 to Black et al teaches frequency channel selection method using dynamic frequency selection schemes.

U.S. PG. Pub. 2008/0025378 A1 to Mahany et al teaches system and method for determining data rate in spread spectrum frequency.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Muhammad Akbar whose telephone number is (571)-270-1218. The examiner can normally be reached on Monday- Thursday (8:30 A.M.- 6:00P.M).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MA

/L. N. L./

Acting SPE of Art Unit 2618